

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 2354 - L2 Version 6  
Chandra X-Ray Center

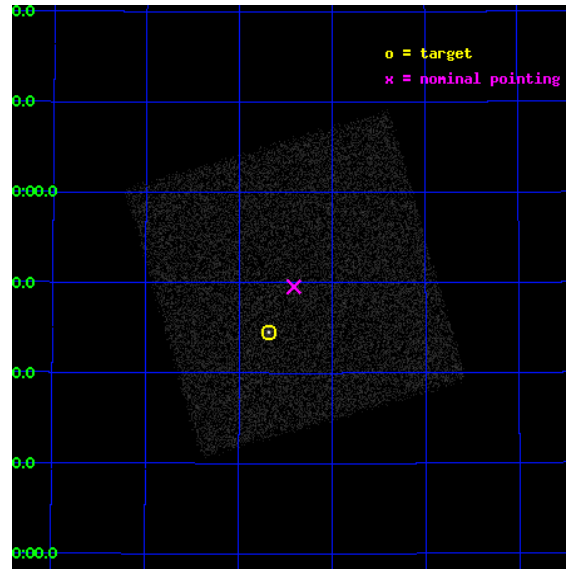
L2 Processing Date : Sep 4 2012

## Contents

|          |                               |           |
|----------|-------------------------------|-----------|
| <b>1</b> | <b>Front</b>                  | <b>2</b>  |
| <b>2</b> | <b>OBI</b>                    | <b>3</b>  |
| 2.1      | OBI . . . . .                 | 3         |
| 2.1.1    | Images . . . . .              | 3         |
| 2.1.2    | Parameters . . . . .          | 4         |
| 2.1.3    | Events . . . . .              | 4         |
| 2.2      | Compared Parameters . . . . . | 5         |
| 2.3      | Aspect . . . . .              | 6         |
| 2.4      | Star Slots . . . . .          | 9         |
| 2.4.1    | Slot 3 . . . . .              | 9         |
| 2.4.2    | Slot 4 . . . . .              | 10        |
| 2.4.3    | Slot 5 . . . . .              | 11        |
| 2.4.4    | Slot 6 . . . . .              | 12        |
| 2.4.5    | Slot 7 . . . . .              | 13        |
| 2.5      | FID Slots . . . . .           | 14        |
| 2.5.1    | Slot 0 . . . . .              | 14        |
| 2.5.2    | Slot 1 . . . . .              | 15        |
| 2.5.3    | Slot 2 . . . . .              | 16        |
| <b>A</b> | <b>Summary</b>                | <b>17</b> |
| A.1      | Status . . . . .              | 17        |
| A.2      | Comments . . . . .            | 17        |

# 1 Front

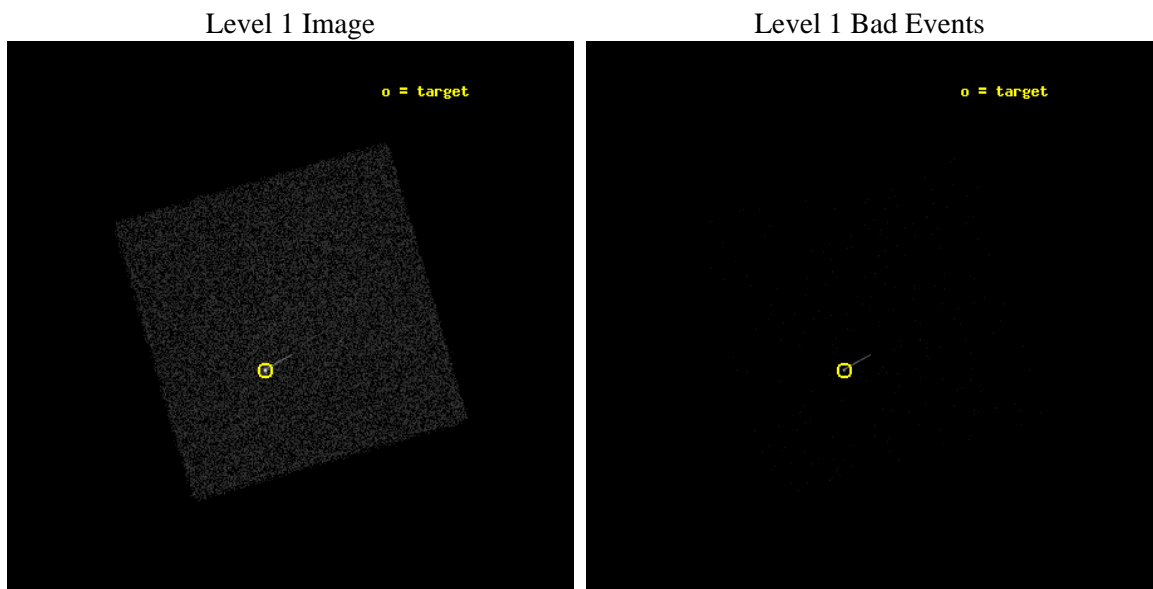
|          |   |                                       |
|----------|---|---------------------------------------|
| seq_num  | 290101                                  | Sequence number                       |
| obs_id   | 2354                                    | Observation id                        |
| title    | HRC-I CALIBRATION OBSERVATIONS OF ARLAC | Proposal title                        |
| observer | Dr. CXC Calibration                     | Principal investigator                |
| object   | ARLAC,HRC-I,AO2A                        | Source name                           |
| ra_targ  | 332.17                                  | Observer's specified target RA [deg]  |
| dec_targ | 45.742306                               | Observer's specified target Dec [deg] |
| ra_nom   | 332.10271657459                         | Nominal RA [deg]                      |
| dec_nom  | 45.826046548858                         | Nominal Dec [deg]                     |
| roll_nom | 298.75310610034                         | Nominal Roll [deg]                    |
| revision | 6                                       | Processing version of data            |
| ontime   | 1196.4312957525                         | [s]                                   |
| livetime | 1190.5362825699                         | Ontime multiplied by DTCOR            |
| l2events | 34561                                   | Number of level 2 events              |



## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



### 2.1.2 Parameters

|          |                     |                                |                |                 |   |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num  | 0                   | Obi number                     | sched_exp_time | 1000.000000     | [s] Scheduled observation exposure time |
| ascdsver | 8.4.5               | Processing system revision     | ontime         | 1196.4312957525 | [s]                                     |
| caldbver | 4.5.1.1             | &#160                          | l1events       | 60457           | Number of level 1 events                |
| date     | 2012-09-04T06:19:35 | Date and time of file creation |                |                 |   |
| revision | 5                   | Processing version of data     |                |                 |   |

### 2.1.3 Events

#### Level 1 Events

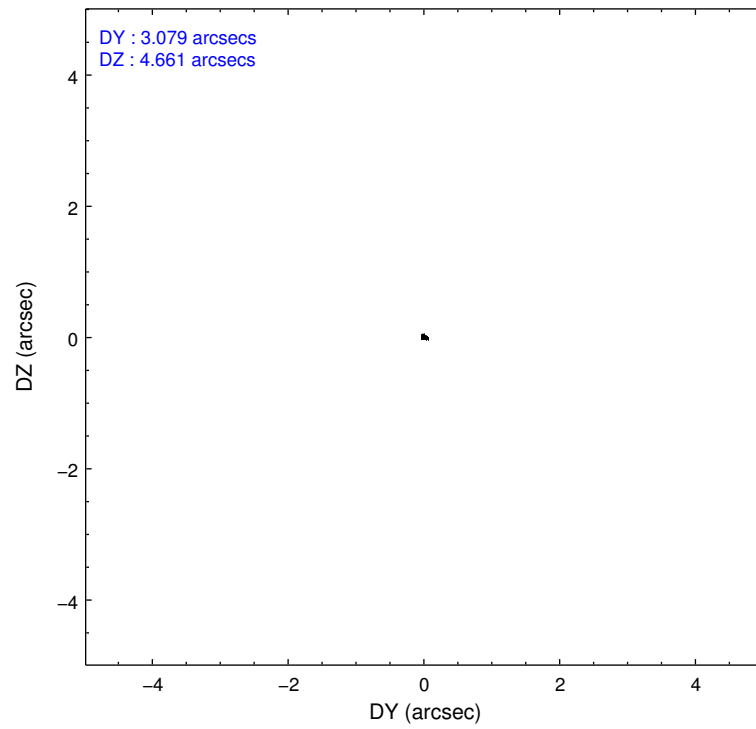
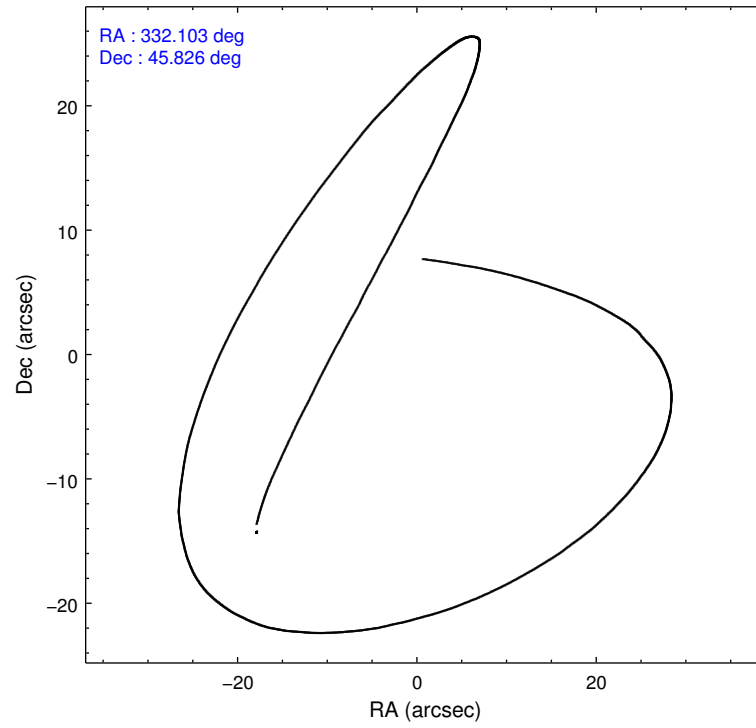
|                 |                      |
|-----------------|----------------------|
|                 | <b>segment<br/>0</b> |
| level 1 events  | 60457                |
| rejected events | 12564                |
| rejected %      | 20%                  |

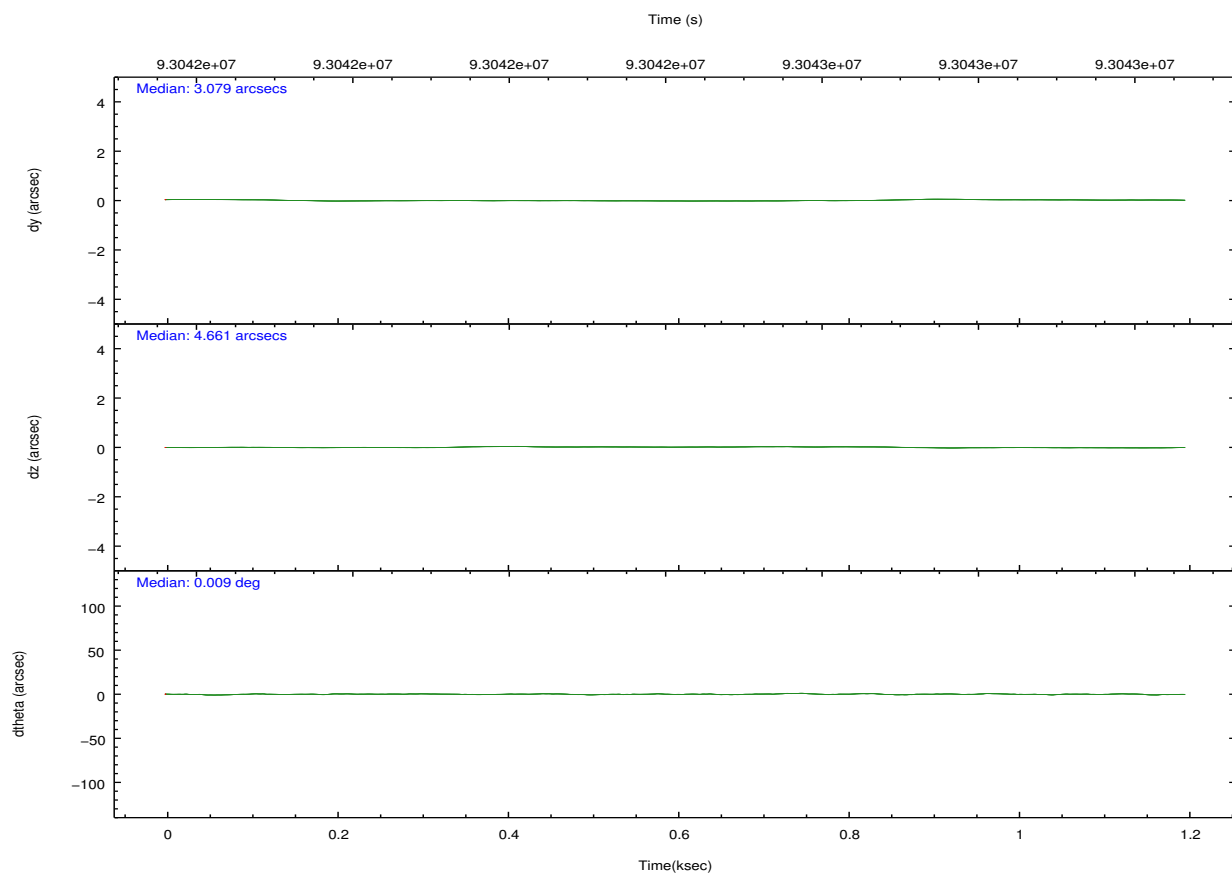
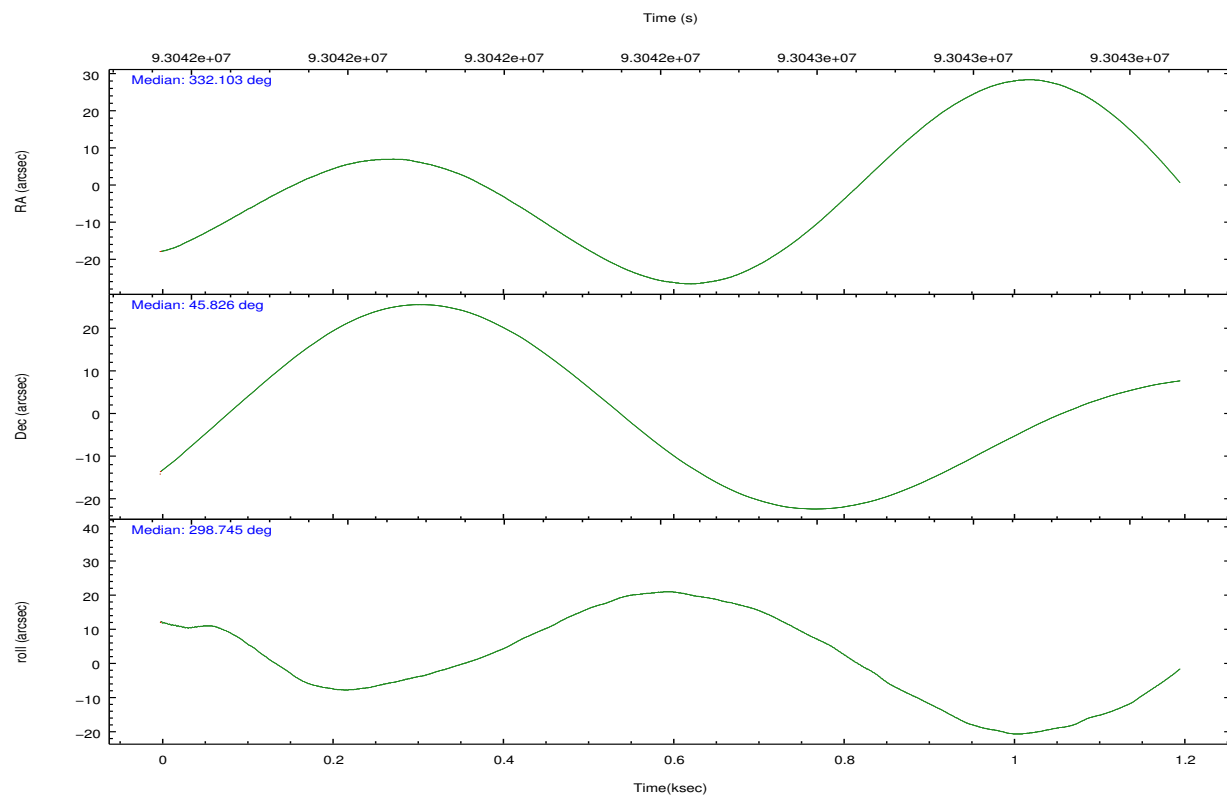
## 2.2 Compared Parameters

| Parameter                         | Planned             | Actual                 |
|-----------------------------------|---------------------|------------------------|
| Instrument                        | HRC                 | HRC                    |
| Detector                          | HRC-I               | HRC-I                  |
| Grating                           | NONE                | NONE                   |
| Data mode                         | OBSERVING           | OBSERVING              |
| Observation mode                  | POINTING            | POINTING               |
| [deg] Pointing RA                 | 332.067773          | 332.1027165745924      |
| [deg] Pointing Dec                | 45.839290           | 45.82604654885829      |
| [deg] Pointing Roll               | 298.873645          | 298.7531061003384      |
| [mm] SIM focus pos                | -1.040293           | -1.038866356238299     |
| [mm] SIM defocus                  | 0                   | 0.001426264420575141   |
| [mm] SIM translation stage pos    | 126.985494          | 126.9854943052878      |
| [mm] SIM translation stage offset | 0                   | -5.413686238853188e-06 |
| [s] Observation start time (MET)  | 93042011.184000     | 93041634.800531        |
| Observation start date            | 2000-12-12T20:59:07 | 2000-12-12T20:53:54    |
| [s] Observation end time (MET)    | 93043011.184000     | 93043145.138089        |
| Observation end date              | 2000-12-12T21:15:47 | 2000-12-12T21:19:05    |

| Parameter                    | Planned   | Actual  |
|------------------------------|-----------|---------|
| Obspar format version number | 7         | 7       |
| Obspar file type             | PREDICTED | ACTUAL  |
| Obspar update status         | NONE      | UPDATED |

## 2.3 Aspect





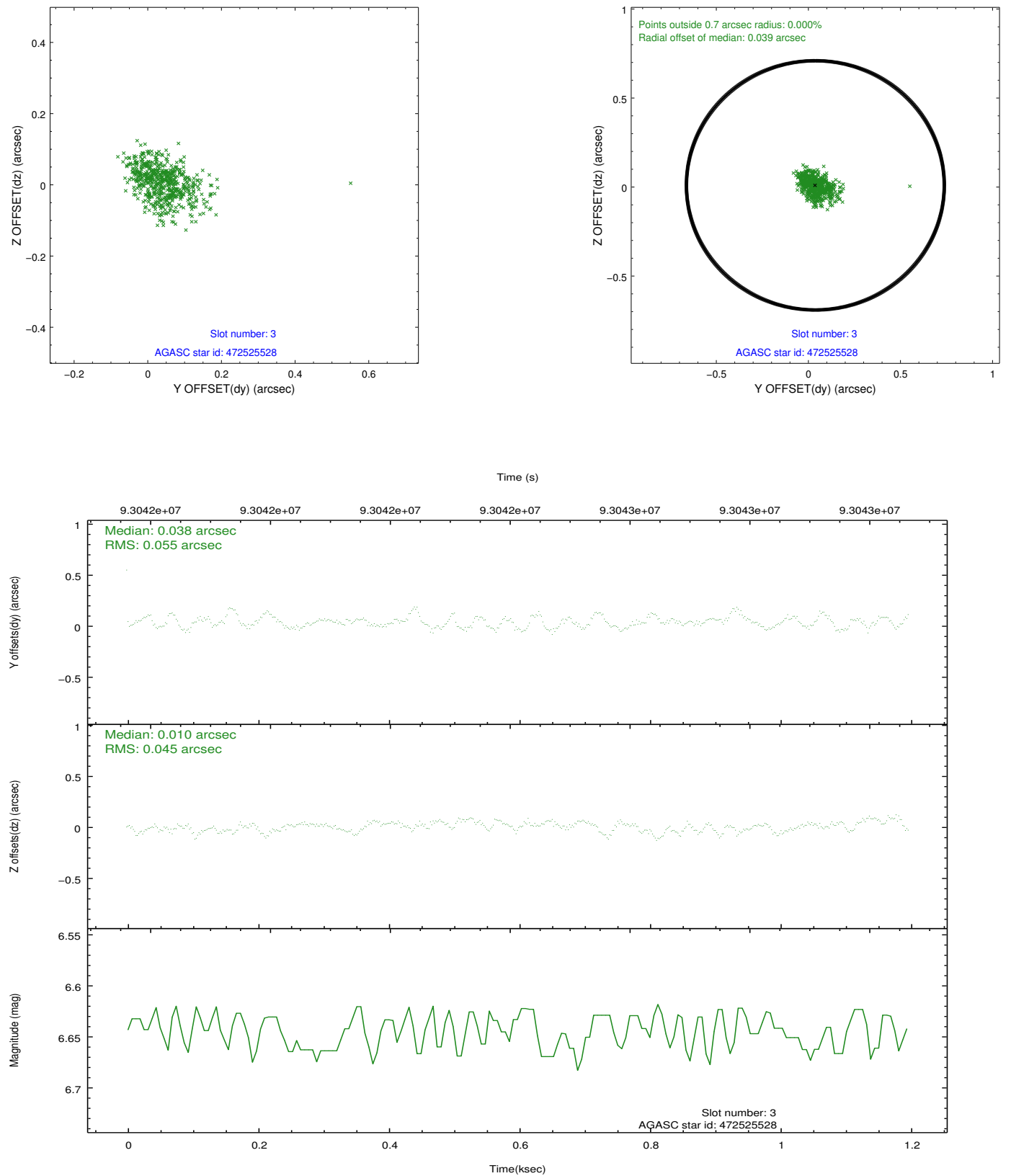
### Slot Statistics

| slot | status | id        | mag  | n_pts | med_dy | med_dz | dr1   | dr2   | ra         | dec       | mean_y   | mean_z   |
|------|--------|-----------|------|-------|--------|--------|-------|-------|------------|-----------|----------|----------|
| 0    | FID    | HRC-I-1   | 6.96 | 293   | 0.045  | 0.064  | 0.006 | 0.011 | 0.000000   | 0.000000  | -758.53  | -1292.43 |
| 1    | FID    | HRC-I-3   | 7.05 | 293   | 0.034  | -0.099 | 0.007 | 0.012 | 0.000000   | 0.000000  | -1189.60 | 1007.57  |
| 2    | FID    | HRC-I-4   | 6.99 | 293   | 0.035  | -0.054 | 0.005 | 0.008 | 0.000000   | 0.000000  | 1280.21  | 1013.05  |
| 3    | GUIDE  | 472525528 | 6.64 | 585   | 0.038  | 0.010  | 0.071 | 0.122 | 331.551102 | 45.248694 | 1226.23  | -2175.52 |
| 4    | GUIDE  | 472535576 | 7.85 | 585   | -0.105 | 0.070  | 0.050 | 0.085 | 331.438373 | 46.291802 | -2185.84 | -589.65  |
| 5    | GUIDE  | 472523760 | 8.24 | 585   | -0.022 | -0.123 | 0.055 | 0.088 | 331.645363 | 45.403260 | 853.09   | -1696.92 |
| 6    | GUIDE  | 472665256 | 9.01 | 583   | -0.112 | -0.132 | 0.074 | 0.128 | 332.808125 | 46.195041 | -237.07  | 2230.81  |
| 7    | GUIDE  | 472646552 | 9.63 | 584   | 0.203  | 0.173  | 0.103 | 0.160 | 333.120915 | 45.571877 | 2108.91  | 1867.61  |

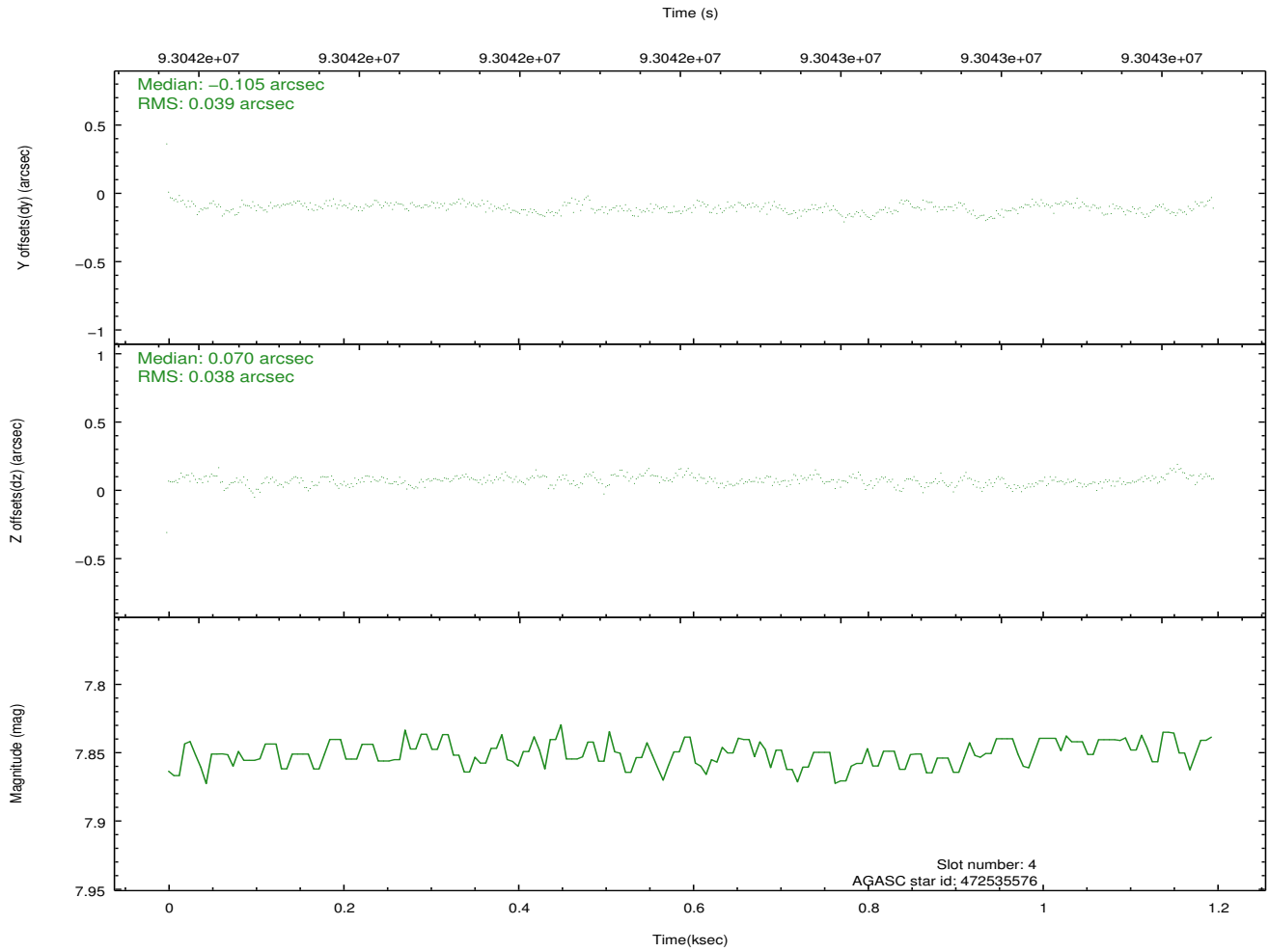
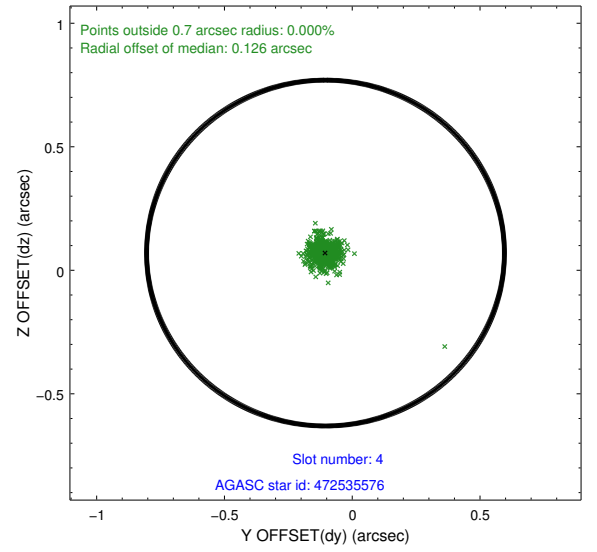
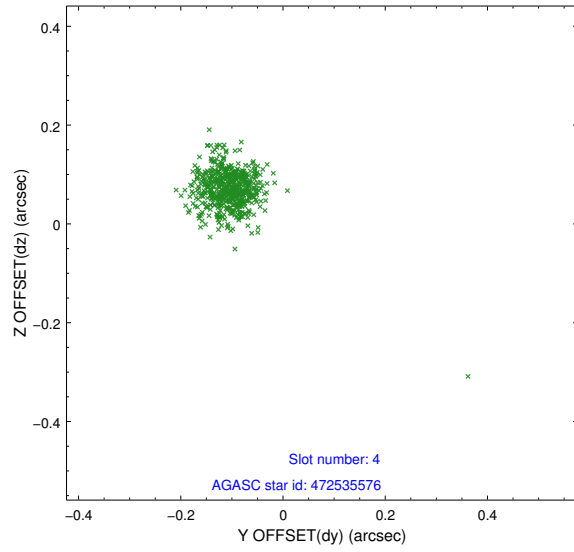


## 2.4 Star Slots

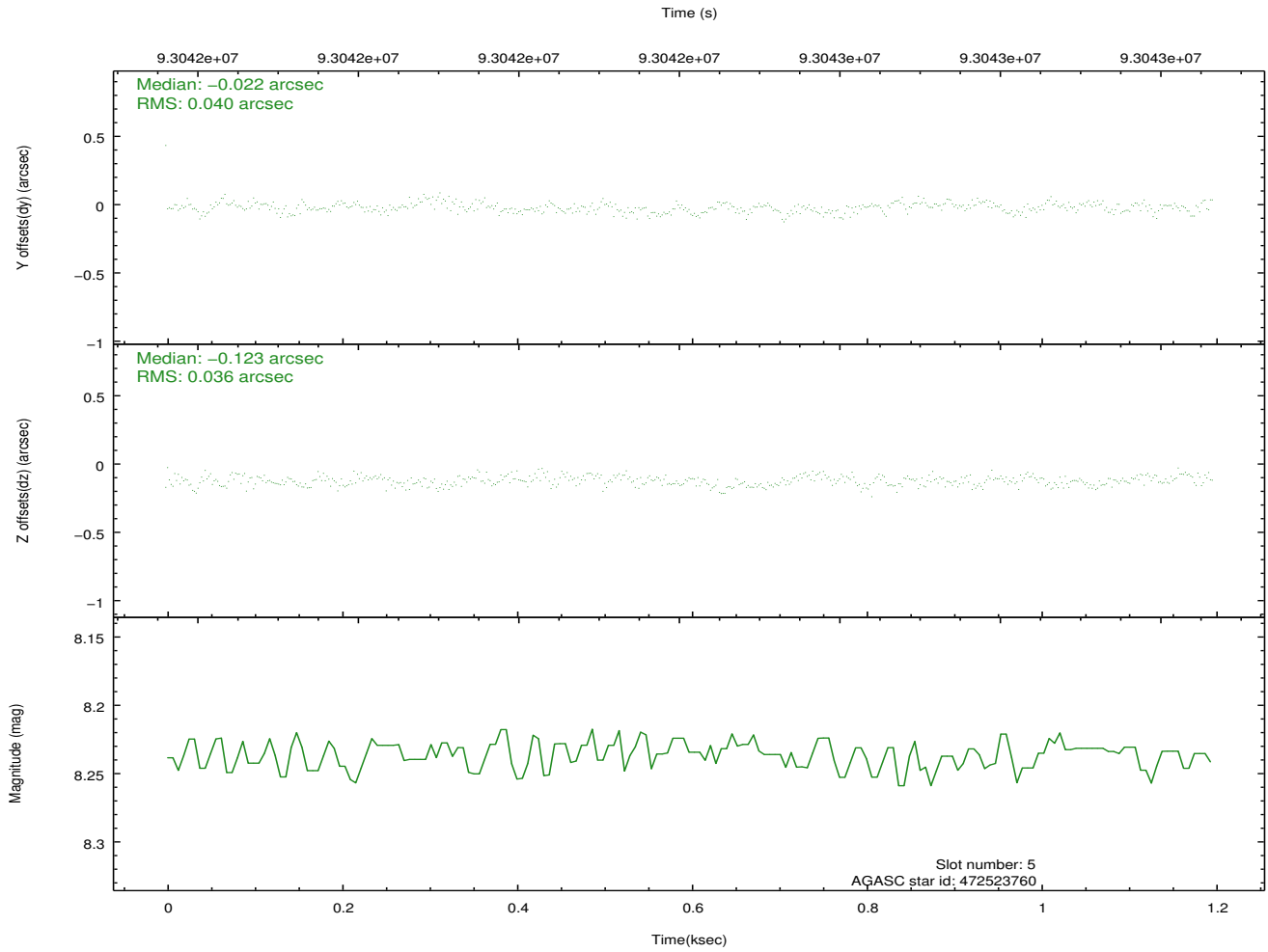
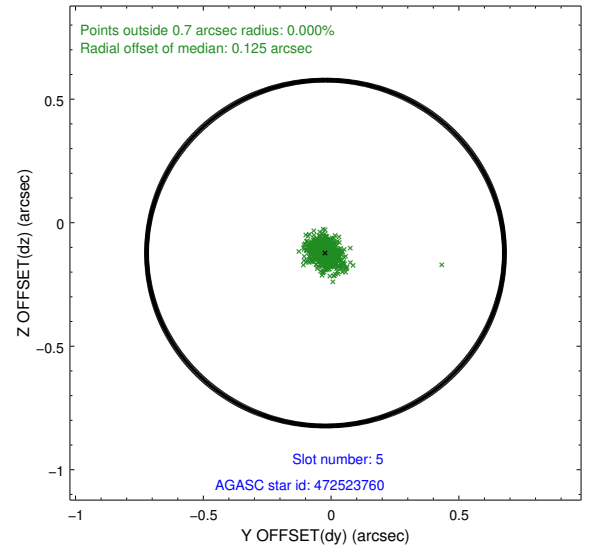
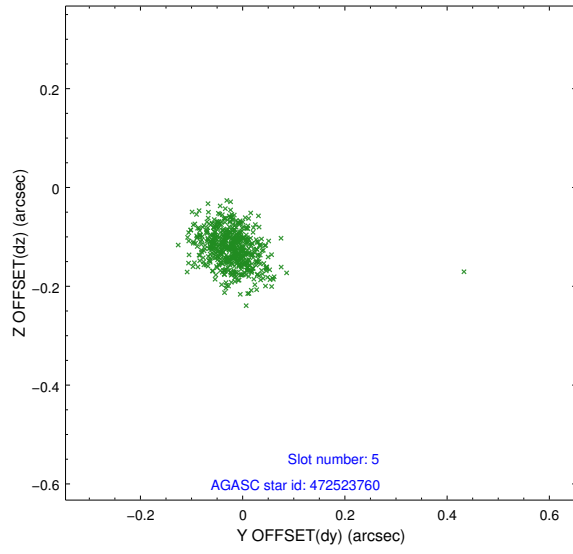
### 2.4.1 Slot 3



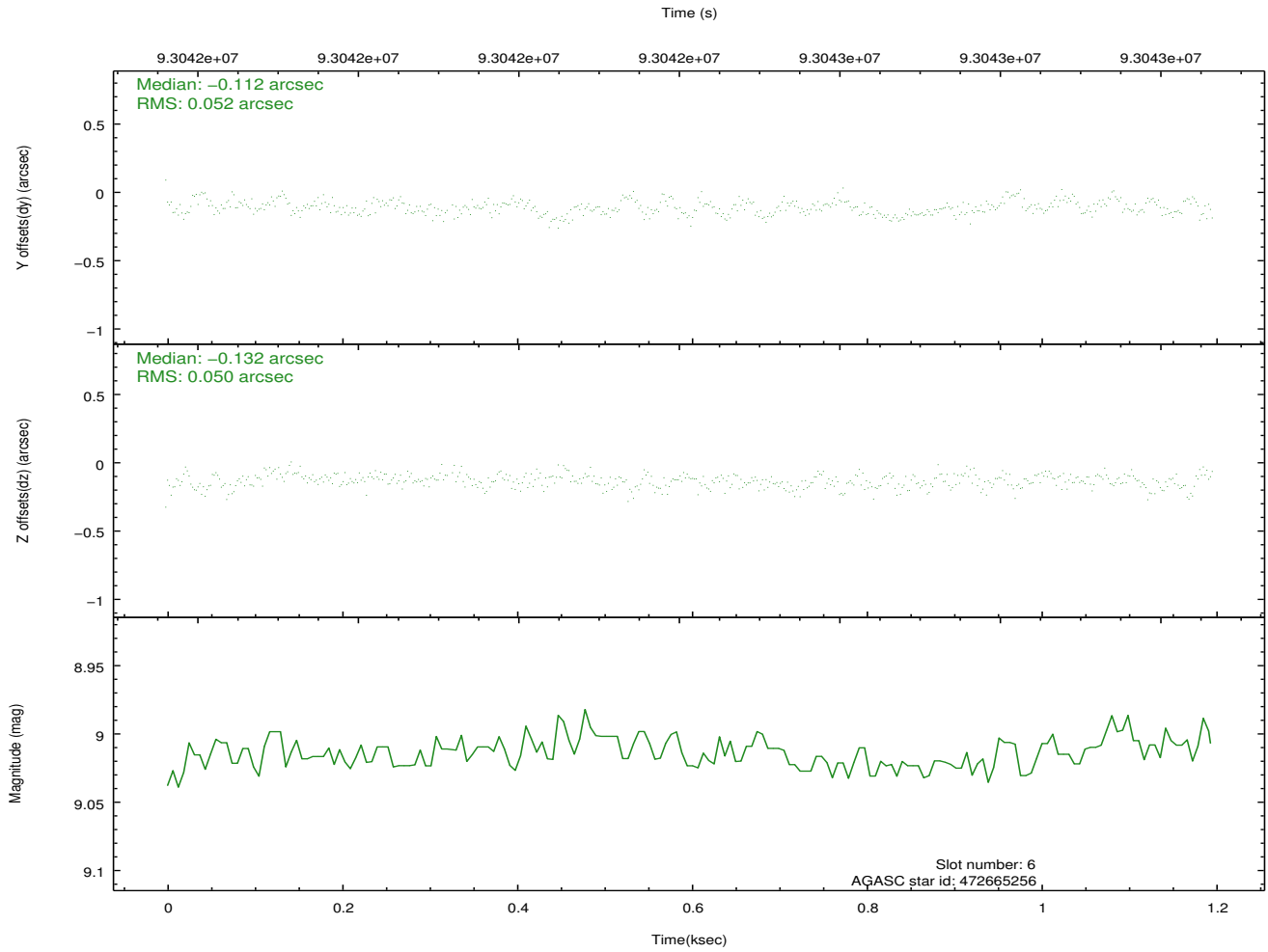
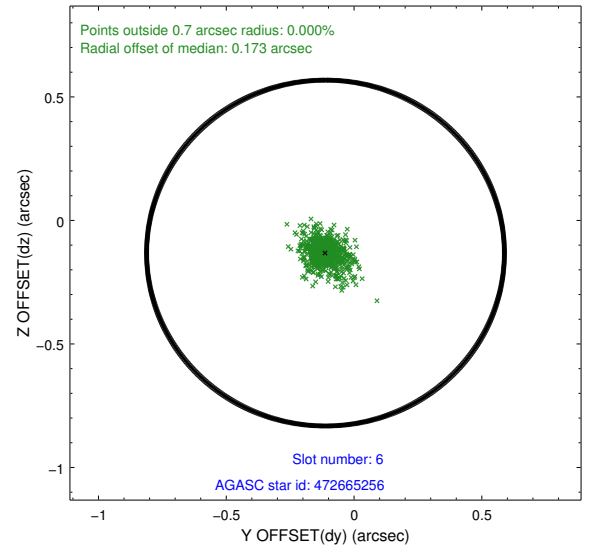
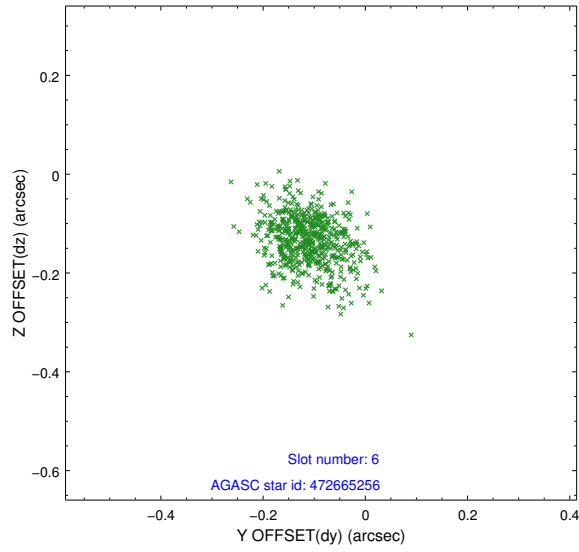
## 2.4.2 Slot 4



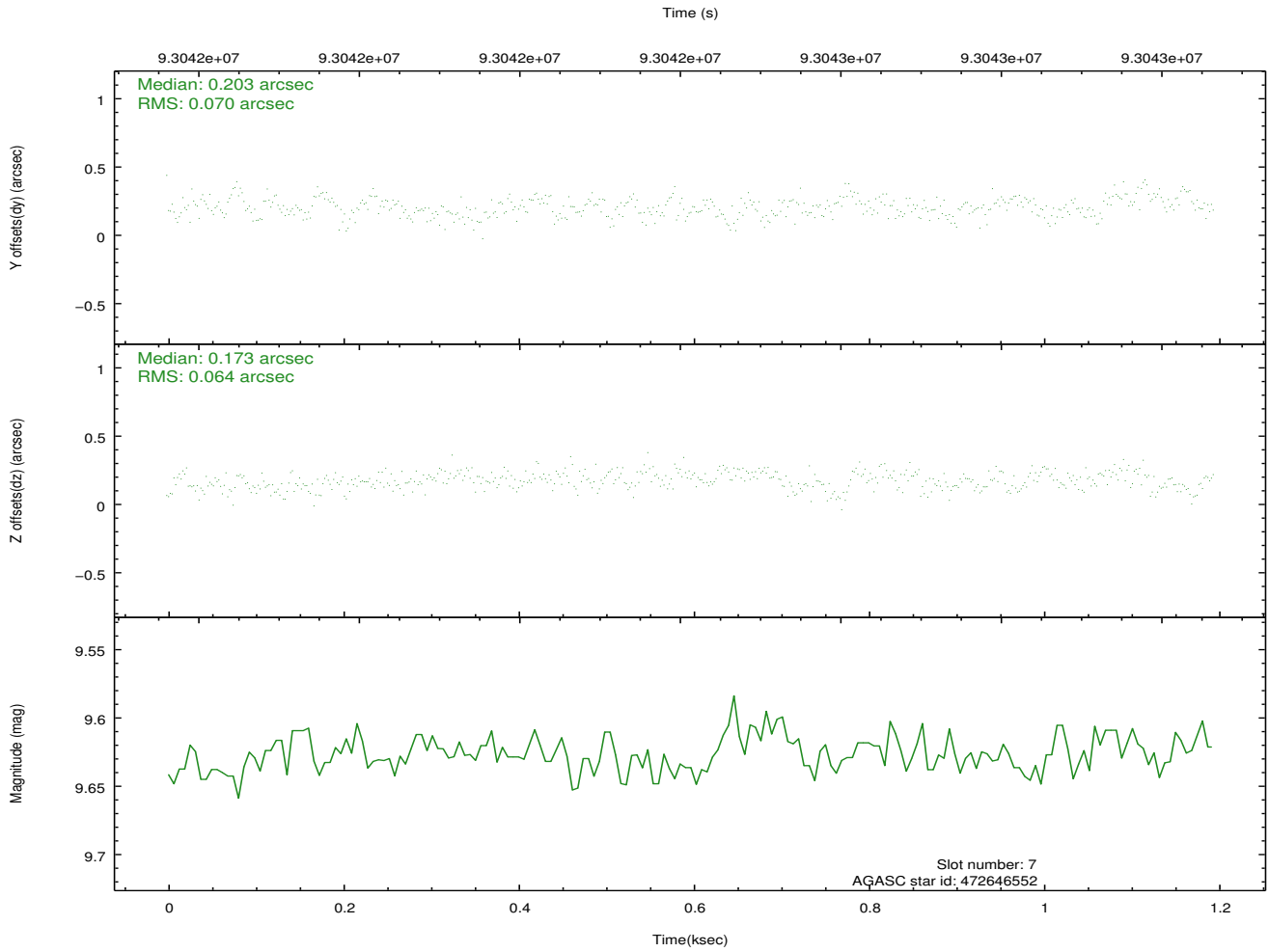
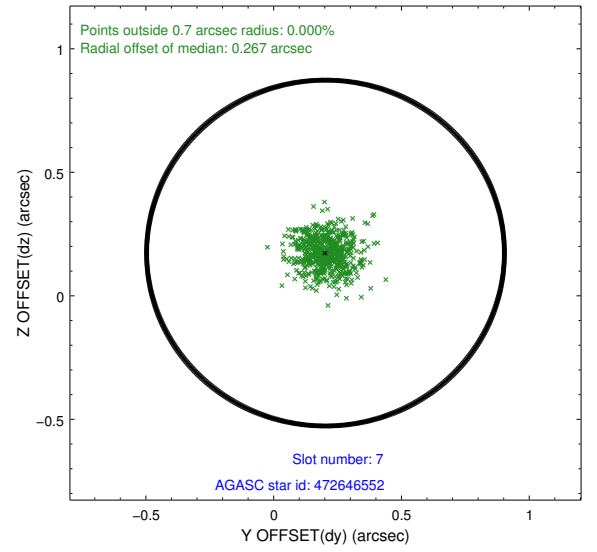
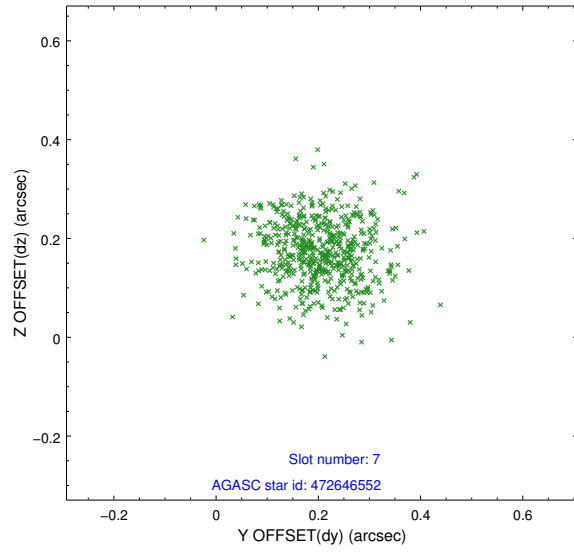
### 2.4.3 Slot 5



## 2.4.4 Slot 6

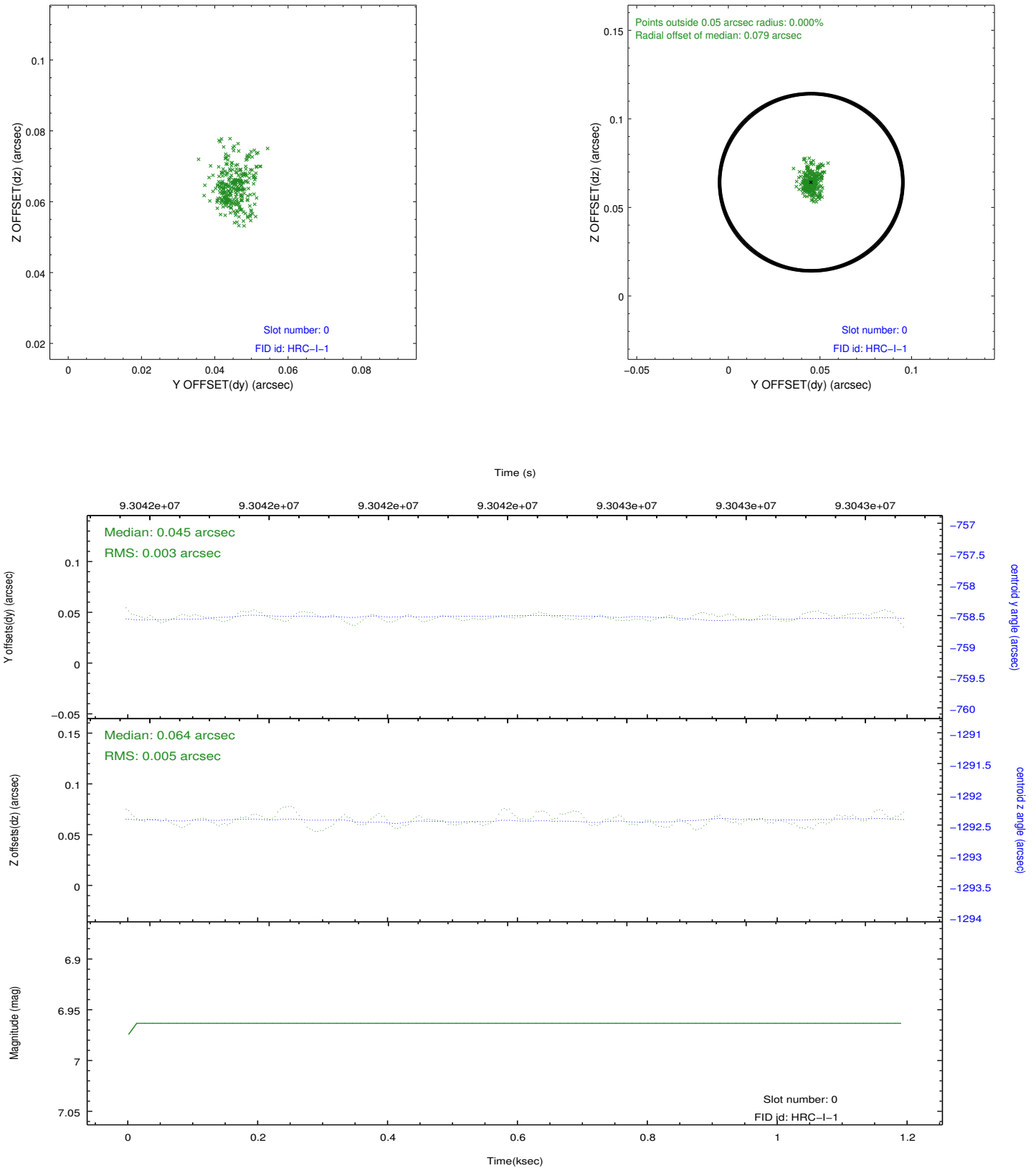


## 2.4.5 Slot 7

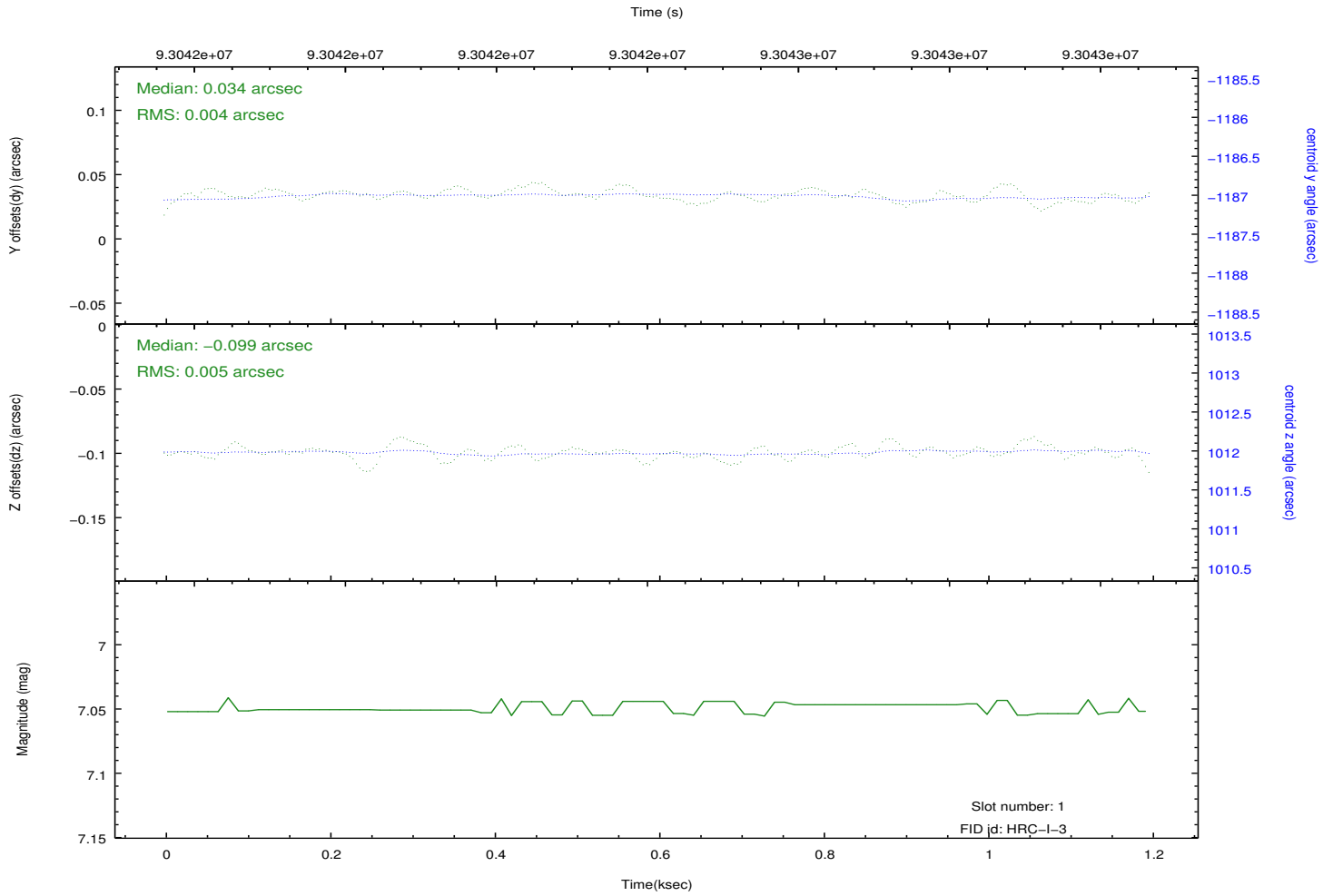
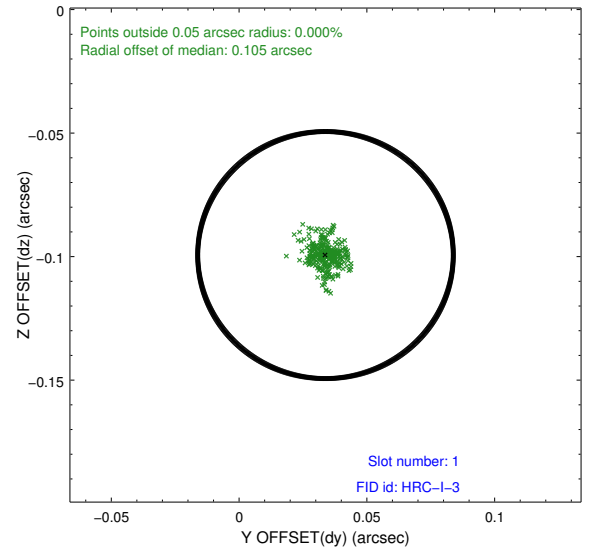
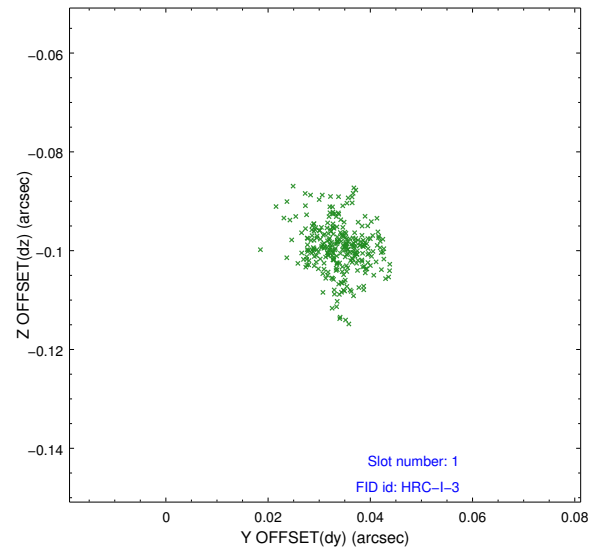


## 2.5 FID Slots

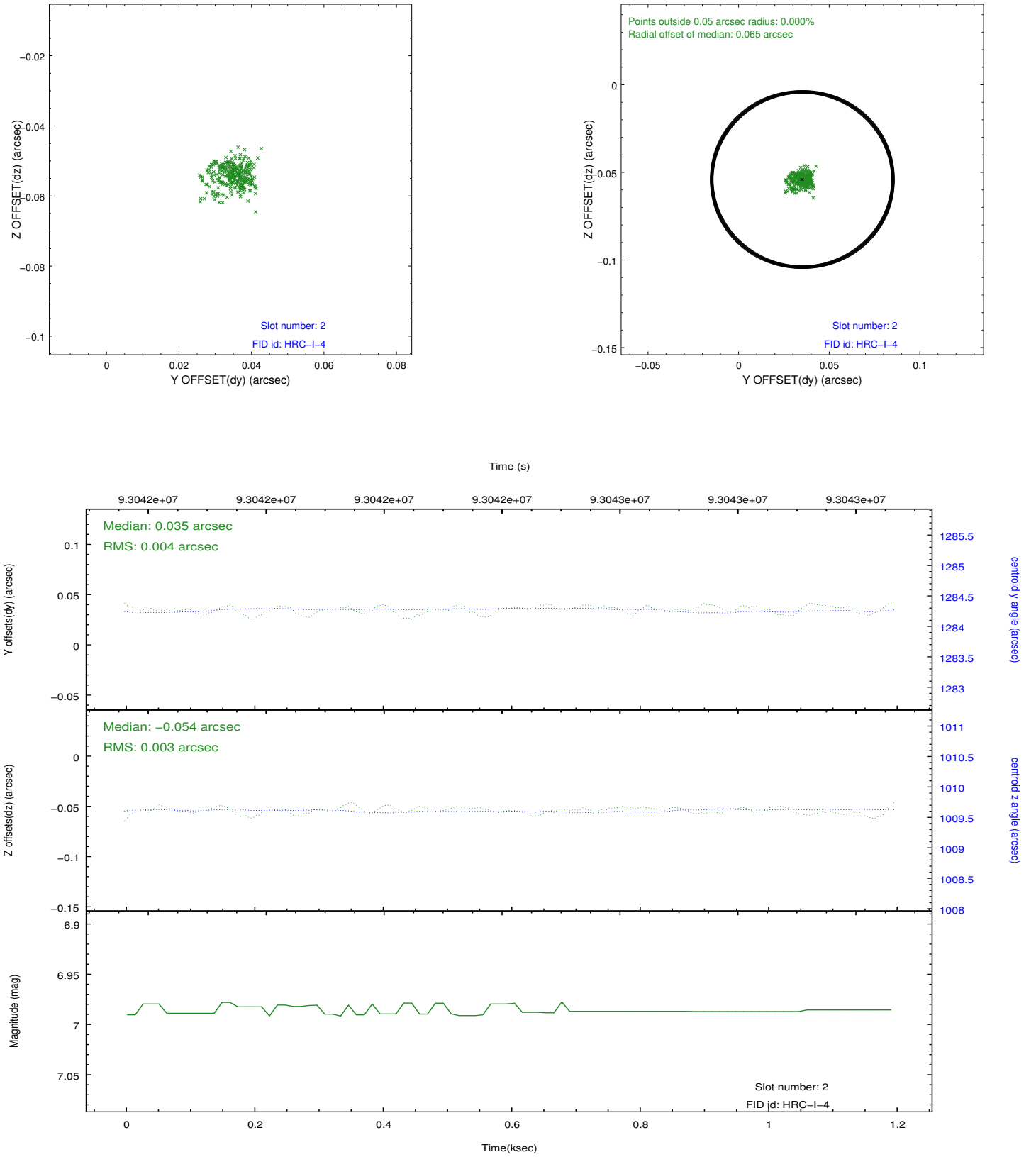
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2





## A Summary

### A.1 Status

|                            |            |
|----------------------------|------------|
| V&V Scientist              | Jen Lauer  |
| V&V Date (YYYY-MM-DD)      | 2012.09.11 |
| V&V Edition                | 1          |
| V&V Disposition and Status | OK         |
| V&V Charge Time            | 1.196      |

### A.2 Comments